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INSTRUMENTAL DIAGNOSIS.

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Laryngoscopy.

I. HISTORY OF THE LARYNGOSCOPE.

As disease has never ceased to inflict humanity from the creation, and as it may be fairly inferred that it has always done so in the same general manner as now, and as a consequence human ingenuity has been taxed to cope with and overcome it, we are surprised that simple and evident processes for its discovery and cure, apparently of modern invention, should not have been employed and recorded in the most ancient writings on medical science. Excepting some scattered allusions to means of physical diagnosis to be met with in the old authors, and a few remnants of surgical art, such as specula, etc., found in excavating the buried cities of Herculaneum and Pompeii we have nothing to indicate that any progress had been made in this direction. It is all the more surprising when we consider the progress made in inventing and improving instruments in other sciences; for instance, we need only mention the brilliant discoveries of the Alexandria school, as set forth in the *Almagest*; and what an impetus was given to the science of astronomy by the invention of improved instruments of observation. For the laryngoscope we are indebted to modern inventive genius; but like other great discoveries, it was not in one brilliant flash that the world received it; it came by instalments, as it were, one observer after another contributing his mite, until the mastermind appeared capable of grasping the whole sweep and mutual connection of the scattered

facts, gathered and combined them into one harmonious whole, and the discovery was made. Thus it befell laryngoscopy.

We shall not delay one moment with the dental mirrors of Celsus, the *glossotochus* described by Paulus of Egina and Hildanus, and figured by Scultetus and Paré; for these instruments are in no wise laryngoscopes, and could never have accomplished the grand results of this instrument from defects in their mechanical construction, which does not in a single instance admit of perfect *illumination* and *reflection* essential to the successful inspection of the vocal cords. Nor do we think any better of the pharyngoscope of Levret described in 1743.

The first realization of the laryngoscope, to our apprehension, was conceived and carried out in the construction of the instrument of Dr. Philip Bozzini, a succinct description of which we have given in our article on rhinoscopy. In adapting it to the larynx, the only requirement was to turn the mirror-mounted speculum downward. The full conception of a laryngoscope—artificial illumination and reflection—was then realized, but the instrument was clumsy and imperfectly constructed, and, therefore, it is doubtful whether the great results of laryngoscopy since achieved could have been obtained.

M. Cagniard de Latour, in 1825, by introducing a little mirror to the back of the throat, and employing solar rays with a reflector, endeavored to examine the larynx during life; but he was unsuccessful, having obtained only an imperfect view of the epiglottis.

In the year 1827 Dr. Senn, a physician of Geneva, employed a small laryngeal mirror by sunlight, to ascertain the condition of the upper part of the larynx of a little girl affected with dysphagia and dyspnoea but the examination was not successful, and he gave

up its use on account of the small size of the instrument; he has recorded his opinion, however, that this method could be employed with advantage in the case of adults, and in certain cases of laryngeal phthisis.

The consummation of the great object was much more nearly approached in 1829, when Dr. B. G. Babington introduced his instrument—the glottiscope as he called it—which closely resembles the present laryngoscope, consisting of a tongue depressor with a long stem articulated to it by the middle, having at its extremity a small laryngeal mirror of an oval or square form made of polished metal. The means of artificial illumination was a mirror held in the physician's hand, by which sunlight was thrown upon the small mirror in the throat.

In 1832, Dr. Bennati, of Paris, asserted that he could see the vocal cords with an instrument invented by a mechanic named Selligie who labored under laryngeal phthisis as recorded by Trousseau; it was a double-tubed speculum, of which one tube served to carry the light to the glottis, and the other to bring back to the eye the image of the glottis reflected in the mirror, placed at the guttural extremity of the instrument.

The attempts of M. Baumès, in 1838, have already been alluded to under the section treating of rhinoscopy. He employed his instrument also in laryngeal explorations.

Liston, in his "Practical Surgery," in 1840, remarked of tumors obstructing the larynx, that "the existence of this swelling (oedematous of the upper orifice of the glottis) may often be ascertained by a careful examination with the fingers, and a view of the parts may sometimes be obtained by means of a speculum—such a glass as is used by dentists, on a long stalk previously dipped in hot water, introduced with its reflecting surface downward, and carried well into the fauces." We can not see in this suggestion of Liston's any greater merit in developing laryngoscopy than attaches to similar suggestions by other observers, his predecessors already named.

Dr. Warden, of Edinburgh, in 1844, encouraged by the success he met with in inspecting the membrana tympani with a prismatic speculum of flint glass applied the same principle to the throat, and reported two cases of laryngeal disease in which this speculum was employed, in one case light being concentrated upon it by another reflecting prism at-

tached to a powerful Argand lamp. "the epiglottis was immediately seen, but it was only when efforts to swallow were made that the arytenoid cartilages and glottis were raised out of concealment and brought brilliantly to show their picture in the reflecting face of the prism." The difficulties encountered in employing this apparatus—the greater space in the throat occupied by the prism and other defects—prevented any important results flowing from Warden's observation.

As the road to success lay in the direction pursued by Bozzini, that is, in the employment of artificial light, we are surprised that it was deviated from by every observer from his time until 1844, when the right direction was again resumed by Mr. Avery, who, according to Dr. Yearsley, seems to have been studying for several years the subject of instrumental diagnosis with reflected light. For exploring the larynx he made use of a laryngeal mirror supported at the guttural end of a speculum, and a concave metal reflector fastened to the head by pads and springs, and having on an arm projecting in front of it a candle, the luminous rays from which were thrown through the speculum by the reflector, and concentrated on the little mirror at its extremity; but four years later this observer dropped the speculum, and adopted the laryngeal mirror attached to a stem.

The most important observations tending to develop the subject of laryngoscopy were made in 1854 by Prof. Manuel Garcia, and formed the subject of a paper presented to the Royal Society of London in 1855. This gentleman was a teacher of singing, and his aim was to study the mechanism of the larynx in the production of chest and falsetto notes; he made himself the subject of his observations, and originated auto-laryngoscopy. His procedure consisted in placing a small mirror, fixed to the end of a long stem, at the back of the throat, and with an ordinary hand glass threw the solar rays upon the laryngeal mirror, which received the image of the parts beneath, and reflected it into the large mirror where the observer perceived it. The observations of Garcia took no other direction than the ascertainment of physiological phenomena; but in the summer of 1857 Dr. Türk, physician of the General Hospital at Vienna, having seen the paper of Garcia, made attempts to employ the laryngeal mirror in diagnosing diseases of the larynx; the mirror

was attached to the stem by means of a hinge, and he depended solely upon the solar rays falling upon this mirror, and illuminating the larynx. He failed in these attempts, as several of his predecessors in these investigations had, even under more favorable circumstances, but the attention of Prof. Czermak, of Pesth, had been arrested by the subject, and in the fall of the same year he borrowed of Türk the mirrors he had cast aside as useless, and commenced his observations, which finally led to the adoption of the present form of mirror, the employment of artificial light by means of the concave ophthalmoscopic mirror of Ruete, the confirmation of the physiological observations of Garcia, the ascertainment of certain pathological conditions of the larynx, and finally, to sum up in one comprehensive expression, he laid the stable foundation of laryngoscopy as we now have it. Since the publication of his first paper, in March, 1858, up to the present time, twelve years, new observers have entered this field of research who have greatly widened its boundaries in every direction, so that the art has become an indispensable acquisition for every intelligent practitioner of medicine.

II. ANATOMY AND PHYSIOLOGY OF THE LARYNX.

The larynx is a very complex structure, consisting of cartilages, ligaments, muscles and mucous membrane, amply supplied with blood-vessels, nerves and lymphatics. It is cylindrical at its lower part when it is continuous with the trachea, and widens above laterally toward the hyoid bone to which it is attached. The cartilages entering into its composition are nine, three single and symmetrical ones—the cricoid, thyroid, and epiglottis, and six in pairs, namely, the two arytenoid, the two cartilages of Santorini, and the two of Wrisberg. The cricoid cartilage, ring-shaped, deep behind, and narrow in front, crowns the trachea and forms the basis of the larynx. Above this is the thyroid, with its broad and expanded sides or ale, terminating superiorly, and inferiorly at the posterior extremities of its upper and lower borders in processes, the former connected with the hyoid bone, and the latter articulating with two facets upon the lateral and posterior sides of the cricoid. Resting by their bases upon the posterior and superior border of the cricoid, are the two pyramidally shaped arytenoid cartilages. Their posterior triangular surfaces are

excavated from above downward, so that the summits of the cartilages are curved backward, the anterior surfaces are convex, rough, and give attachment to the thyro-arytenoid muscles, and by a small tubercle to the ventricular bands (false vocal cords); the inner faces are flattened parallel, and opposite each other. The external angle is short, rounded, and projecting backward, gives attachment to the posterior and lateral crico-arytenoid muscles, the anterior longer and more pointed, projects horizontally forward, in which the true vocal cord is fixed. The apex curves backward and a little inward, and terminates in a rounded point upon which repose two small cartilaginous triangular or conically shaped nodules—the cartilages of Santorini. The cartilages of Wrisburg are placed one upon each side of the larynx in the fold of mucous membrane, which extends from the summit of the arytenoid to the epiglottis; they have a conical form, with the base looking upward, raising the mucous membrane into little protuberances, just anterior to the cartilages of Santorini. The epiglottis, a thin lamella of yellow cartilage cordate in shape, stands in the median line just above the glottis, and connected at its apex by a long fibrous band to the angle of the thyroid cartilage. It is covered with mucous membrane, which forms on its anterior surface a single median fold running to the base of the tongue, and at its margin two other folds curving around to the arytenoid cartilages. On each side of the median fold, at the base of the tongue, a pocket-like depression is observed.

The articulation between the inferior cornua of the thyroid and the cricoid permits motion in the antero-posterior direction, while that between the arytenoid and cricoid allows the former cartilages the freest play laterally, antero-posteriorly and rotatory.

The superior aperture of the larynx communicating with the pharynx is triangular in shape, wide in front and narrow behind, sloping downward and backward, bounded in front by the epiglottis, behind by the arytenoid cartilages, and laterally by those folds of mucous membrane called the ary-epiglottidean ligaments. Below this aperture we see another broad fold enclosing elastic tissue, the ventricular bands, which are sometimes called the false vocal cords, because they do not share in the function of phonation. Still deeper are observed two yellowish white cords, the true

vocal cords, reaching from the anterior angle of the thyroid to the processus vocalis of the arytenoid, and between these and the ventricular bands are those oblong cavities, the sinuses of the larynx or ventricles of Morgagni. From the anterior point of the ventricle extends the laryngeal pouches, upward, between the ventricular bands, and the inner surface of the thyroid cartilage.

The muscles acting upon the larynx are of two orders, extrinsic and intrinsic; the former being the sterno-hyoid, the sterno-thyroid, thyro-hyoid, omo-hyoid, the muscles of the supra-hyoidean region and the middle and inferior constrictor muscles of the pharynx. The intrinsic muscles, or those connected with the cartilages alone, are fine pairs; the crico-thyroid, the posterior crico-arytenoid, the lateral crico-arytenoid, the thyro-arytenoid, and the oblique-arytenoid, and one single muscle, the transverse-arytenoid.

The crico-thyroid arises from the side and fore part of the cricoid cartilage, and runs up obliquely to be inserted into the lower part and inferior corner of the thyroid.

The posterior crico-arytenoid arises from the back part of the cricoid cartilage, and is inserted into the posterior part of the base of the arytenoid.

The lateral crico-arytenoid arises from the side of the cricoid, and is inserted into the side of the base of the arytenoid near the posterior crico-arytenoid.

The thyro-arytenoid, arises from the upper part of the angle of the thyroid, and running backward and a little upward divides in three portions; one is inserted into the vocal process, another into the vocal cords, forming their lower surface, and the third fasciculus into the outer edge of the arytenoid cartilage and aryepiglottic ligament.

The oblique arytenoid muscle arises from the base of one arytenoid muscle, crosses its fellow, and is inserted near the tip of the other arytenoid cartilage.

The single muscle is the transverse arytenoid, which arises from the inner side of the arytenoid cartilage, from near its articulation with the cricoid to near its tip, and as the name indicates, the fibres run transversely and are inserted into the corresponding surface of the other arytenoid cartilage.

The function of the crico-thyroid muscles is to approximate the thyroid and cricoid cartilages, and thus render the vocal cords more

tense. In this function they are assisted by the posterior crico-arytenoid muscles, which, pulling the arytenoid cartilages backward, stretch the vocal cords, and separating the vocal process of the arytenoid cartilages from the obliquity of their position, open the glottis. The crico-thyroid and posterior crico-arytenoid muscles are tensors of the vocal cords. The opponents of these two pairs of muscles are the thyro-arytenoid, which pull the arytenoid muscles forward and thereby relax and shorten the vocal cords.

The lateral crico-thyroid muscles close the glottis by pulling the vocal processes of the arytenoid cartilages together. In this action they are assisted by the transverse and oblique arytenoid muscles. The action of all these muscles may be seen at a glance in the following table:

TENSORS OF VOCAL CORDS.		} (Antagonizing)	}	LAXATORS OF VOCAL CORDS.	
1. Crico-thyroid.				1. Thyro-arytenoid.	
2. Post crico-arytenoid.					
ABDUCTORS OF VOCAL CORDS.		} (Antagonizing)	}	ADDUCTORS OF VOCAL CORDS.	
1. Posterior crico-arytenoid.				1. Lateral crico-arytenoid.	
				2. Transverse arytenoid.	
				3. Oblique arytenoid.	

Besides these muscles there are three others described in connection with the larynx. The thyro-epiglottic, a few pale fibres extending between the thyroid cartilages and the epiglottis; its action would be to draw the epiglottis upon the glottis; the superior ary-epiglottidean extending between the arytenoid cartilages and the epiglottis, has the same action as the previous; and the inferior ary-epiglottidean, composed of a thin layer of muscular fibres spreading out over the upper half or two-thirds of the laryngeal pouches, and acts by approximating the epiglottis and arytenoid cartilages, compressing the subjacent glands that open into these pouches, and altering the shape and size of these cavities.

The laryngeal mucous membrane is everywhere thin and of a pale pink color, and over the epiglottis and vocal cord it is very thin and closely adherent to the parts beneath. About the ary-epiglottidean folds there is some loose cellular tissue, which is the seat of the fluid extravasation, constituting oedema of the glottis. The membrane is supplied with abundant mucous glands, the orifices of which are everywhere seen except near the vocal cords.

The supply of blood to the larynx is derived from the superior and inferior thyroid arteries, and the veins empty into the superior, middle and inferior thyroid.

The nerves are the superior and inferior laryngeal branches of the pneumogastric, containing a few motor fibres from the spinal accessory. The superior laryngeal nerves supply the mucous membrane, the crico-thyroid muscles, and in part the arytenoid muscle. The inferior or recurrent laryngeal supply all the muscles of the larynx except the crico-thyroid, and in part only the arytenoid.

Having refreshed the memory with a hasty account of the anatomy of the larynx, it will be proper to take a further step and inquire in the same cursory manner as to its physiology, and in order to do this we must view the larynx in a two-fold connection: 1st. In its participation in the function of respiration. 2d. As the organ of voice.

In ordinary quiet respiration, when the air is silently passing to and fro in the larynx, at every expiratory effort the arytenoid cartilages may be seen to approach, and in inspiration they resume their position more widely apart. In this lateral to and fro movement of the arytenoid cartilages, if the observer peers deeper into the tube, he may also recognize the vocal cords in a corresponding but more limited action. The outer surfaces of the cartilage of Wrisberg, and the part of mucous membrane just below it partaking in this motion, are alternately laid in contact with and removed from that part of the lateral wall of the pharynx corresponding with the process of the hyoid bone, which may be distinctly recognized beneath the mucous membrane by its lighter-yellowish color, contrasting with the surrounding red surface. The epiglottis is raised and not in contact at any point with the pharyngeal wall, a view of the glottis being obtained around the erected valve everywhere. This is the condition of my own larynx in ordinary respiration, but there are varieties in this respect.

According to Czermak's description, which I presume was drawn from the observation of his own throat, "the epiglottis touches the posterior wall of the pharynx with the superior part of its lateral borders, there remaining no interval for the passage of air but below at the two sides, and above about the middle." In forced respiration the above described motions are exaggerated; the arytenoid cartilages in deep inspiration are widely separated, the line joining the two forming the base of a triangle of which the apex is at the thyroid angle, the sides being the vocal cords. Un-

der either of the preceding conditions of respiration we cannot see the whole of the vocal cords, but only the posterior half or two-thirds and the arytenoid cartilages, and in order to amplify the view, the epiglottis must be induced to change its inclination backward, and this may be done by following the advice of Czermak, by giving the base of the tongue a convenient position as, for instance, in pronouncing the sounds *ah* or *eh*. The complete emission of the vowel *e* elevates the base of the tongue to the point of entirely covering the laryngoscope; but it does not do so when we only pronounce partially this vowel; yet the mere attempt sometimes suffices to bring about the wished-for result.

In deglutition, coughing and hawking, the larynx is completely closed. In the experiment upon myself, I have been led to adopt the views expressed by Czermak as to its mechanism. He says, the arytenoid cartilages immediately meet at their internal surfaces and processes, and they bring the edges of the vocal cords in contact. The superior vocal cords, (ventricular bands) approximate to the inferior vocal cords, so as to obliterate the ventricles of Morgagni; at the same time they also meet in the median line. The epiglottis being lowered, and its cushion becomes more prominent still, it presses against the closed glottis; the contact takes place from before backward. All these changes occur with such rapidity that great attention is necessary to examine them in detail. He says that these threefold occurrences in the hermetic closure of the larynx explain the resistance which the glottis successfully opposes to the pressure of the air, without a development of much force during the effort. When he compressed the air within his chest he observed the elastic parts to arch or curve outward, without allowing the air to escape. When he cleared his throat, as if to expectorate, a passage is made for the air, because the elastic arched parts yield and are found to give way rapidly by the violent explosion of the air. He perceived the epiglottis, which is applied with its cushion upon the glottis, to become agitated by the distinct shocks. The epiglottis is not passively depressed under these circumstances, for example, by the base of the tongue, but this depression is actually caused by the proper muscles of the epiglottis themselves.

My experiments upon myself and others entirely accord with the foregoing views of Czermak, but we are sure that the mechanism is not identical in all this detail in all persons. There are individuals in whom, as pointed out by Merkel, the ventricular bands do not meet, but always leave a space between them; and these slight deviations in function are in keeping with what we encounter in other organs, the functions of which are often marked by unimportant anomalies of mechanism.

The determination of the function of the larynx in phonation is more difficult than in respiration. We have seen the mutual arrangements of the different portions of the glottis in respiration where the only essential condition is a free and uninterrupted passage of air to and fro in the larynx. In the production of sound, besides this condition (a current of air of a certain intensity and velocity, which is a purely respiratory act), there are others indispensable and peculiar to phonation, these are an approximation of the arytenoid cartilages and tenison of the vocal cords. In determining the share of each of these three conditions, in the emission of sounds, observers have been naturally led to the consideration of musical instruments, and endeavored to establish some sort of analogy between them and the larynx. These instruments are of two principal sorts, those in which the sound is produced by vibrating strings that communicate their motion to the air, and those in which it is dependent upon the vibration of a column of air. The latter sort is further divided according as the motion is communicated to the air through a mouth-piece, or a vibrating elastic lamina. The opinions of physiologists have varied as to which class the larynx assimilates. Ferrein long ago compared the vocal cords to vibrating strings, but a close examination of the laws governing the former will show that they are not applicable to the latter, for instance that the number of vibrations per second, and therefore the pitch of the sound, is inversely as the radius of the string, directly as the square root of the stretching weight or tension, and inversely as the square root of the density of the cord, etc., relations which have been proven to hold good as regards vibrating strings, but not as regards the vocal cords.

Nor can we assimilate the larynx to the second class of instruments in which the sound depends upon a vibrating column of air in a

pipe, and its pitch or tone upon the dimensions of the pipe, and velocity of the current of air. This analogy cannot be sustained, as the dimensions of the column of air between the mouth and larynx do not possess the required amplitude to produce the tones of the human voice. Analogy and experiment, however, go to show that the conditions for the production of the voice are realized in the third class, or reed instruments, in which, as has been shown by Müller, the vibrating tongues may be of different forms without impairing the laws governing their action. The form may be that of a band extended by a cord, and included between two firm plates, so that there is a cleft for the passage of air on each side of the tongue. The elastic membrane may be stretched over half or any portion of the end of a short tube, the other part being occupied by a solid plate, between which and the elastic membrane a narrow fissure is left. In the third form two elastic membranes may be extended across the mouth of a short tube each covering a portion of the opening and having a chink left open between them which resembles the arrangement of the human vocal cords. In this sort of instrument a blast of air throws the tongue in vibrations which are communicated to the column of air in the pipe. Now, what happens in the larynx? The blast of air from the lungs, issuing with a varying velocity and force, comes in contact with the vocal cords approximated to each other, and exercises a certain amount of pressure according to the force of the blast causing them to yield outward, and at this moment a part of the air escapes, diminishing the pressure, and permitting the vocal cords, by their elasticity, to regain their original position. By a series of such oscillations they successively open and close the glottis, producing sonorous waves or tones which, by their sequence become music; or modified by the organs contained in the nose and mouth, constituting speech. We can study by means of the laryngoscope the position of the several parts of the larynx in vocalization, which will vary considerable according to the pitch of the sound. In the graver sounds the arytenoid cartilage comes in contact on the median line approximating the vocal cords so as to bring them into a condition for vibration throughout their length and breadth, but the anterior portion of the cords are shut out from view by the epiglottis. Ascending the scale to a certain sound, the epiglottis is raised and takes a position further forward,

so we can get a better view of the cords which are now seen approximated so as to leave only a linear interval between them, and the arytenoid cartilages with their vocal processes in contact along their entire inner border. In this connection it will be necessary to allude to the difference in the mechanism of the larynx in chest voice and *falsetto*, the latter being that peculiar modification of the voice in which not only the pitch of its notes is higher than the former, but their *color* or timbre is also altered so that they lose the reedy quality of chest notes and assimilate to the harmonic notes of stringed instruments. In some persons the transition from the chest voice to *falsetto* is gradual and smooth, in others abrupt, others still can sound the same notes in the two different registers. Magendie was of the opinion that the difference was due to vibrations of the vocal cords along half their length. The German physiologist, Müller, takes another view, that in the production of *falsetto* notes only the upper edge of the vocal cords vibrate, while in chest notes the vibrations occupy a wider space. Helmholtz wants to find in the displacement by the action of the muscles of the mucus which constantly lies under the vocal cords, thus rendering their edges sharper and their weight less, so that they may be shaken into the more rapid vibrations of *falsetto* notes.

These facts are of importance to the laryngoscopist, as a knowledge of the share taken by the various parts of the larynx in phonation will more surely enable him to arrive at a truthful diagnosis, when those functions are altered by disease, which always induces more or less change in the character of the voice. Anything which alters the vibratility of the vocal cords, as when they or the mucous membrane covering them is swollen by the sudden impression of cold, prolonged use of the voice etc., will surely induce hoarseness in varying degrees of intensity. The voice will also be altered if the muscles which move the cords, and which we have tabulated on a preceding page, are disabled from the thorough performance of their functions by spasms or paralysis. Thus we find as a frequent cause of aphonia, relaxation or inability of these muscles which approximate the arytenoid cartilages and vocal cords. If the set of muscles which separate them be paralysed we shall likely witness a great difficulty in breathing. The tensors may be affected so that the requi-

site amount of tension of the cords cannot be secured, so that there will be greater or less impairment of voice, or the same results will follow in case the laxators of the cords are embarrassed in function.

Besides the causes of impaired phonation to be found in the above mentioned condition of the parts of the larynx, we must also seek further causes in other parts associated in the performance of this function. As may be seen when the condition of the parts above the larynx, the nose, pharynx and mouth, are altered by catarrh, for instance, which, by occluding the nares, give the voice a disagreeable nasal twang. Narrowing of the throat by enlarged tonsils, tumors in the pharynx, are all causes of altered voice. It is equally important for the integrity of the functions of the larynx that the blast of air come up from the lungs in proper strength and velocity, which require that the respiratory function must also be in its normal condition of strength.

(To be Continued.)

A CASE OF DROPSY.

By THEODORE A. DEMME, M. D.

On the 13th of April I was called to see Mrs. B., residing in a court running from Coates street near Second, in this city.

She had been for some time previously under the care of a skilful practitioner, but dissatisfied and discontented, she desired a change of medical attendants, and I was accordingly sent for.

I found my patient to be a woman past 40 years of age; a mother of several children; had not been pregnant during the last six six years; menstruation during the last years very irregular in their appearance; had not had her courses for two months. She was enormously swollen from dropsical effusion; a general cedema extending over the entire body, and the abdomen distended to such an extent as to give a circumferential measurement of 46 inches. Her face was thin and pinched, the skin jaundiced, almost of a mahogany color.

A moment's application of my ear to the chest revealed extensive valvular disease of the heart, and after a more careful investigation, the existence of cirrhosis of the liver was rendered apparent.

In regard to the prognosis there could be

no doubt in my mind, and my endeavors were therefore directed to relieve as far as possible the dropsical accumulation and to alleviate her sufferings.

Following these indications, she was placed upon a course of diuretics, hydragogue cathartics and tonics, but without any amelioration of her symptoms. The œdema and ascites gradually increased, and the most distressing dyspnœa supervened; the poor patient was unable to lie down in consequence of the sense of impending suffocation, and day in and day out was obliged to maintain a sitting position, supporting her head upon a table or the back of a chair.

About the middle of May the lower extremities were so swollen that she was no longer able to move them, and every change of position had to be made with the assistance of her attendants. At this time, in consequence of the great distention, sloughing of the integument of the feet and legs took place, accompanied necessarily with great serous discharge.

On the 20th of May, her menses not having appeared for nearly three months, I made a vaginal examination, and found the uterus pressed down into the pelvis, almost to the vulva, somewhat enlarged, the neck swollen and elongated. There could be little doubt of pregnancy of two or three months duration. Subsequent examinations (although my patient scouted at the idea) convinced me of the existence of this condition.

During the early part of June her sufferings, aggravated by the heat of the weather, became so great that the question arose whether it was not imperative to resort to tapping.

On the 16th of June I requested Professor Albert Stillé to see the patient with me in consultation. After a long and laborious examination it was decided that the only chance of prolonging life, or at least to give some relief to the patient, was to perform the operation of tapping.

Professor Stillé kindly remaining present, I introduced the canula immediately beneath the umbilicus, and drew off three bucketfuls of the accumulation. The fluid presented the usual appearance, an amber-colored albuminous liquid.

The patient, after recovering from a syncope, caused by the rapid removal of such an enormous quantity of fluid, was properly bandaged and placed upon a bed. The patient

experienced decided relief of the most distressing symptoms, the dyspnœa being entirely removed. During the month of June the fluid rapidly reaccumulated, and on the first of July the distension was almost as great as it had been the month before. On the 3d of July, noticing that there was a constant trickling of serum through the wound that had been made in the tapping, I pressed the edges apart with a director and again removed a bucketful of fluid.

My patient's strength was now rapidly giving way; the action of the kidneys became suspended; the dyspnœa distressing; the pulse feebler and feebler; on the 10th of July coma supervened, and on the 11th she expired.

In the act of dying there was expelled from her the fœtus, apparently perfectly formed, but extremely small, if my reckoning of five months pregnancy at the time of death was correct.

The day following the decease I was called to examine the body, and found the abdomen so distended that I deemed it advisable to again introduce the canula, and drew off three and a half gallons of water.

The above report has been prepared from a sense of duty that I owe to myself and to the profession. Various accounts of the case have been made, and the treatment harshly criticised. It is my wish to show that in the charge of the case nought was left undone that should have been done; and that nought was done that should not have been done; and that when occasion required active measures, I called to my aid one whose judgment and skill is acknowledged by the whole profession.

Deferred Labor.

Dr. W. B. CHASE, of Windham Centre, N. Y., sends us the details of a case of labor which was protracted through the whole of the ninth month of utero-gestation. The uterine action was kept under control by the judicious use of sulphate of morphia, "not with the expectation or belief," says Dr. Chase, "that it would act specifically on the uterus to increase its contractions, but directly the reverse, to quiet useless and annoying pain, and restore a natural correlation of the vital forces."

Labor was finally terminated at full term in the birth of a healthy child, whose life might have been sacrificed if the doctor had yielded to the earnest solicitations of the family during the month to terminate the labor, which he might easily have done. There being no apparent reason, apart from their wishes, for doing so, his firmness is to be commended.

EDITORIAL DEPARTMENT.

PERISCOPE.

Lithotrity.

At the Royal Medical and Chirurgical Society, Tuesday, May 10th, 1870, Sir HENRY THOMPSON presented an analysis of 184 cases of stone in the bladder of the adult, treated by lithotrity. He furnished all the most important details relating to each case, and presented the stone itself in almost every instance, preserved for inspection. His object was to make an impartial estimate of the crushing operation, to ascertain its real value, and its place among surgical operations. Although this had never yet been fully done, he regarded B. BRODIE's last communication to the Medical and Chirurgical Society as perhaps the most trustworthy and valuable record, so far as it goes, which exists on the subject. In order to accomplish this object, he had made carefully written records of every case; and he cited the following circumstances as necessary to be taken into consideration: that the 184 cases had been treated by a uniform method, within a comparatively brief period of time; that all were adults, and embraced much variety of constitution; that all the important facts relative to each were noted in a history of each one, which was attached to the paper as an appendix; and that a large proportion of the calculi were of considerable size. And the author believed he was correct in saying that so complete an opportunity for studying the results of lithotrity had not been offered hitherto, since as far as he was aware, the data necessary for the formation of a judgment had not been presented to the profession, either in this country or elsewhere.

The chief facts relative to the 184 cases were as follows. They were consecutive in point of time, no case being omitted; that all were adults, and mostly of advanced age; that they included many individuals of very feeble health and constitution; that they were chiefly British, although several were from other nations. The mean age of the 184 cases was no less than sixty-one years. The youngest was twenty-two years old. Only three were below thirty years. The oldest was eighty-four years. There were forty-six cases of seventy years and upward. With very few exceptions, all stones of an ounce weight and upward were reserved for lithotomy. All obviously below that were crushed. Not one case was refused operation, not one was left unfinished, and in no case was an operation for lithotrity completed by lithotomy.

The recoveries, reckoning every kind of casualty following the operation, were 93 per cent.; but omitting five cases of death, not by any means due to it, the mortality amounted to only 4 per cent. A second operation for recurrence of the stone was performed for thirteen of the 184 cases; 122 were uric acid and the urates; 16 were mixed; 40 were phosphatic; 4 oxalate of lime; 1 cystic oxide; and 1 pure phosphate of lime.

The important logical conclusion to be derived from the mass of facts considered was that lithotrity is an eminently successful operation. For a certain number of cases, its success may be regarded as a certainty—absolutely without fear of any contingency, except such as attends the minor operations of surgery,—for example, the opening of a small abscess, or the passing of a catheter. For the author stated that he had never lost a patient in the whole course of his experience after crushing a stone which was no larger than a small nut; and this he considered was a size at which, with few exceptions, every stone ought to be discovered. But this very fact led the author to remark that the success of lithotrity cannot therefore be considered apart from a knowledge of the extent, in regard of the magnitude of the stone and the constitution of the patient, to which the capabilities of the operation have been pushed. When it is employed for stones as large as a date, or a small chestnut—and it is impossible to deny the excellent chance of success which this method offers to the subjects of such stones—a certain, but still only small, proportion of deaths must be expected. And the rate of mortality will correspond with augmentation in the size of the stone, and with the amount of existing disease and age on the part of the patient. Given a small stone in a fairly healthy person, and success is certain; the possibility of contingency in such a case depending only on the presence of those remote and excessively rare conditions which will make for an individual here and there, the mere passing of a catheter a cause of death. The rule observed had been, for the most part, to apply lithotrity to all calculi obviously less than an ounce in weight, easily discovered by sounding, and to operate on all larger ones by lithotomy.

Hydrate of Chloral, in Delirium Tremens.

C. A. STIVERS, M. D., of the San Francisco City and County Hospital, reports to the *Pacific Medical and Surgical Journal*, the following cases:

An opportunity having offered to make trial of the new hypnotic in two cases of delirium tremens brought into the hospital, I herewith present the results, which were highly satisfactory :

CASE I.—E. W., female, æt. 38, native of Ireland. Admitted April 13th, at 9½ A. M., suffering from a severe attack of delirium tremens. The nurse was obliged to place her in a strait jacket, to have any control whatever over her. I ordered : R. Chloral hydrate, 1 dr. ; syr. pruni virg., aquæ. each 1 oz., one-half to be taken at once, and the remainder in two hours, if no sleep. The first dose was given at 10 A. M., the second at 12 M. No sleep, but patient rather more quiet. Repeated the same prescription, and gave one-half at 2 P. M. Patient sleeping soundly at 2½ P. M., and continued in that condition until 9 P. M., when she awoke perfectly free from delirium ; and, to use her own words, she felt "pretty well—only a horrible headache." Took about a pint of beef-tea. At 12 M. the remainder of the hydrate was given—in all, 2 dr. Directly afterward she fell asleep, and so continued until morning, when she was discharged from my care. No return of delirium occurred.

CASE II.—C. G., male, æt. 27, native of Ireland. Admitted April 14th, at 11½ A. M., with delirium tremens. Had to be confined in a jacket. Ordered : R. Chloral hydrate, 1 dr. : syr. pruni virg., aquæ. each 1 oz. M. Sig.—one-half at once, and the remainder in two hours, if no sleep. The first dose was given at 12 M., and he fell asleep in about ten minutes, and continued in a sound slumber for about two hours, when he awoke slightly delirious. The remainder of the hydrate being given, he was asleep in ten minutes, and continued in a sound sleep all the afternoon and night—a little over fifteen hours. Next day he was discharged, cured.

You will perceive that the medicine was given in full doses. In some instances in which it has failed to exhibit its effects, I suspect the failure was owing to the smallness of the dose. No other remedy was employed in conjunction with it in the foregoing cases ; so the trial may be deemed a fair one, as far as it goes.

Diphtheria.

Dr. GEORGE HILL writes to the *British Medical Journal* on this disease as follows :

An epidemic of diphtheria having prevailed in the neighborhood recently, I have had an opportunity of testing the therapeutic value of various topical remedies. I will not occupy space with the details of illustrative cases, but will state my conclusions briefly.

Lactic acid, as recommended by MM. Bricheteau and Adrian, is an invaluable application, dissolving the diphtheritic membrane in a wonderful manner. It must be freely and repeatedly applied, and,

being a harmless agent, it may be used with safety by those in charge, in the absence of the practitioner. But it must not be solely depended on, as it seems to possess no power of preventing the re-formation of the membrane. Of the other topical remedies, I found none so efficacious as the liquor ferri perchloridi fortior of the *Pharmacopœia*. A gargle of dilute hydrochloric acid, two or three drachms to eight ounces, is of great service in clearing the mouth and throat of the viscid mucus which accumulates with such rapidity. I also found an occasional gargle of carbolic acid, two or three grains to the ounce, of use in destroying foetor and cleansing the mouth. Carbolic acid inhalations seem good in theory, and it is possible that they may be of service in freeing the system from the diphtheritic poison. But the local symptoms were not improved by their use, and if continued long, they seemed to aggravate the œdema, which adds so much to the distress of the patient. Of internal remedies I have not much to say. I prescribe a drachm of chlorate of potash, in a pint of water, with lemon-juice, to be used as a common drink daily.

Electricity in Paralysis.

At the Clinical Society of London, Dr. ANSTIE exhibited three patients in whom electrical treatment had been applied for the cure of local paralysis. Case I. was an extreme instance of paralysis of the extensors of the right forearm and hand, and also of the shoulder muscles, for which the only assignable cause was lead-poisoning. The affected muscles were greatly wasted, and the case seemed hopeless ; but by the use of the constant current from Weiss's (Sinee's) battery daily for about two months, and then subsequently of Faradisation (which at first had no effect) for another month, the power of all the muscles was almost entirely restored, and the man enabled to resume work. Case II. was an instance of paralysis of all the muscles of the forearm, the sequel of acute rheumatism. It was rapidly cured by the application of the interrupted current from Gaiffe's apparatus. Case III. was an example of a very rare and curious affection—complete anæsthesia of all the sensory nerves springing from the right brachial plexus, and of a few branches (supraclavicular) from the cervical plexus. It had existed for six years. The patient (a young man now 21 years old) could only trace its occurrence to a severe attack of scarlet fever, immediately after which he first noticed it. There was no loss of muscular power, and but little if any affection of the muscular sense. Faradisation (with Stöhrer's one-celled apparatus) was commenced in December last, and perseveringly applied every day for five weeks, without the slightest effect. The constant current from Weiss's battery was then

tried, and in a very short time a marked improvement commenced. After a time the whole sensibility of the limb was much changed, and now the use of Faradisation was found to be effective. At the time of the report, after four months' treatment, the patient might be said to have twice the amount of sensibility (to pricking, etc.) in the hand, and three times the amount in the forearm and arm, which he had at the commencement of treatment. He had also regained sensibility to heat and cold, which had been entirely lost. In all probability, however, he would never be completely cured. In all these three cases the electric current, whether constant or interrupted, was purposely applied in a local manner only—i. e., to the nerves and muscles of the affected parts. Dr. BUZZARD said that Professor BENEDIKT had just informed him that he had found advantage follow galvanizing the sympathetic. It is in these cases, according to Remak, where there is difficulty in producing muscular contraction, that galvanizing is likely to do good. Dr. Austie thought that galvanizing the sympathetic was theoretically good. He had brought forward the foregoing cases to show what the treatment, persistently carried out, may do; but the practical results were certainly far from gratifying. In answer to Mr. Paget, whether contraction of the muscles was not necessary to produce good results, Dr. Austie said that he had found it so.

Poisonous Effects of Orange Peel.

DR. GIBBONS says, (*Pacific Medical and Surgical Journal*) May, 1870: Many years ago we had in charge two little girls, sisters, four and six years of age, who were seized with violent inflammation of the bowels from swallowing the rind of the orange. One of them died in convulsions, and the other had a narrow escape. Since that time quite a number of instances similar in character have come under our observation. Quite recently we have seen a child something over a year old, that was attacked with violent dysenteric symptoms for which no cause could be assigned. The attack came on during the passage of the family on the steamer from San Diego. The symptoms were so identical with those which we had previously noticed to arise from poisoning by orange peel, that we were induced to inquire particularly if the child had an opportunity of getting this substance in its mouth. We were informed that it had been playing with an orange and nibbling at it just before the attack of disease. The discharges from the bowels were frequent and painful, and consisted of blood and mucus. After a week of severe enteric inflammation, the child died. We have no doubt that the disease was brought on by the rind of the orange. Though but a small quantity must have been swallowed, yet a very small quantity of such an indiges-

tible and irritating substance will often produce the most serious consequences. The oil of the rind is highly acrid, and adds greatly to the noxious quality of the indigestible mass. We learn that it is a common practice among children at some of our public schools to eat the rind, and that juvenile merchants have been known to trade off the inside of the fruit for the skin.

The Normal Position of the Female Pelvic Organs.

Professor A. BRIESKY, Berne, Switzerland, sent to the Gynæcological Society of Boston, a stereoscopic photograph of the pelvic organs *in situ*, from a section of the pelvis of a virgin aged twenty-eight years, hardened in alcohol—a method which he prefers to frozen sections. The uterus is seen to be slightly ante flexed, with its long axis at a right angle to that of the vagina, and almost coincident with the axis of the inlet of the pelvis. The following measurements may prove interesting. Conjugata vera diameter of the pelvis, 3 inches $4\frac{1}{2}$ lines; conjugata diagonalis diameter of the pelvis, 4 inches 4-4.5 lines; antero-posterior diameter at the outlet to the point of the coccyx, 2 inches 2 10-2.5 lines; antero-posterior diameter to the point of the sacrum, 3 inches 10-4.5 lines; length of vagina (anterior wall), 2 inches 1-3.5 lines; length of entire uterus, 2 inches 1-4.5 lines; length of the uterine cavity, 1 inch 10-4.5 lines; length of the cervix uteri, 10-4.5 lines; length of the vaginal portion, anterior lip, 1-3.5 lines, posterior lip, 2-4.5 lines; diameter of the uterine wall at the point of incision—fundus, 4-2.5 lines; anterior wall, 3-1.5 lines; posterior wall, 3-1.5 lines; diameter of the perineum, 1 inch 4-4.5 lines.

Rabies.

M. PEUCH showed, at a meeting of the Society of Medical Sciences of Lyons, *Lyons Medical*, Dec. 19th, 1869, the tongue of a dog which had died of the above disease. The owner of the animal thought that a bone had been arrested in the throat, as the dog was constantly carrying his feet to that region; but the veterinary surgeon at once suspected rabies. Let this circumstance be a hint to dog-owners. On each side of the tongue an ulcer with sharply-rounded edges was perceived, the size being from one to two lines. M. Peuch stated that he had never found such ulcers but in cases of rabies, and thought the latter disease had perhaps its own characteristic ulcer, like the syphilis or glanders. In answer to a question, the author said that he had inoculated the matter of each ulcer to a bitch two months old, and that, on killing the animal four months afterward, no rabid lesion was found, nor had any symptom been observed during life.

The Ligature for Hemorrhoids.

The *Pacific Medical and Surgical Journal* says: Dr. W. H. VAN BUREN (*New York Medical Gazette*) prefers the ligature in the treatment of hemorrhoidal tumors. He has operated in from sixty to seventy cases without any unpleasant result, and says that in a hundred similar operations by the late Valentine Mott there was but one fatal case. Dr. Van Buren commences the operation by forcibly dilating the sphincter ani muscle, which remains more or less paralyzed for a week, thus sparing the patient much pain from its pinching tender parts. He then seizes the tumor with a tenaculum, transfixes its base with a double-threaded needle, and ties each half of the tumor separately. Little subsequent is required beyond keeping the bowels confined for four or five days, and providing for their solubility when moved.

Rubber Cloth in the Treatment of Skin Diseases.

Professor HEBRA, of Vienna, and Professor HARDY, of Paris, are using vulcanized India rubber cloth in the treatment of skin diseases, especially the scaly eruptions. Professor Hebra (*European Medical News*, quoted by the *Pacific Medical and Surgical Journal*) employs the rubber cloth not only in rolls, but made into caps, stockings, drawers, and shirts, the smooth side to be placed next to the skin and kept so applied, except when it is desired to cleanse the part. The retained perspiration softens the scales and secretions, which emit a penetrating stench on removing the cloth after twelve hours' application, and upon washing, the skin appears red, moist, and shining, without odor, and more or less deprived of epidermis. If the cloth is kept off any length of time, itching, pain, and tension return. In many cases the eczema was healed in two months. As other modes of treatment will cure within this time, the special advantage of the rubber cloth is in those cases where it is inconvenient to apply ointments, lotions, etc., as upon the hands, joints, feet. Professor Hebra does not use the cloth to the exclusion of other treatment, but finds it best to combine them.

Hare Lip.

At the Obstetrical Society of Ireland, on Saturday, April 9th, Mr. WILLIAM STOKES read a paper on a new method of effectually remedying the defect of hare-lip. After adverting to the difficulties which surgeons have experienced in operations for this malformation, in getting rid of the deformities of the notch at the red border of the lip and the vertical groove, or sulcus, which frequently occurs at the line of the cicatrix, and which is caused by the contraction, or falling in of the tissues in this situa-

tion, he mentioned the attempt made by various surgeons toward obviating the first of these defects. No efforts, however, had been made against the second. To prevent the occurrence of either, Mr. Stokes advocated the adoption of the principle of the utilisation of the parings. Allusion was made to the operations of SAMUEL SMITH, of Leeds, M. NÉLATON, and the late Mr. M. COLLIS. The operation is a modification of Sédillot's and Collis's procedure. Several drawings illustrative of its results were exhibited. The advantages to be derived from its adoption are: (1) the avoidance of any subsequent curtailment of the projection at the lower extremity of the cleft; (2) the applicability of the new operation to all forms and varieties of hare-lip; (3) the unlikelihood of the destruction, from twisting of any portion of the soft tissue; (4) the avoidance of the formation of a notch; and (5) the prevention of any vertical sulcus, or groove, in the line of the cicatrix.

Ovariectomy in a Girl aged Twelve.

M. JOURON, professor at the medical school of Nantes, successfully performed this operation a short time ago. The patient had been suffering from an abdominal tumor for the last eighteen months, and the growth had reached the size of a twin pregnancy at the end of gestation. The diagnosis was not easy, and at one time hydatid of the liver was suspected. On the strength of the last supposition it was determined to open the abdomen by caustics. When the slough had been incised, it was found, after the evacuation of some liquid, that the abdomen contained a capacious pouch, studded with fibrous tumors projecting in its cavity. As now the diagnosis was clear, and the girl lost ground every day, ovariectomy was performed. The cyst was multilocular, and the adhesions numerous; but, in spite of these difficulties, and the patient's tender age, she was well on the forty-sixth day after the operation.

Subcutaneous Injections of Arsenious Acid in Skin Diseases.

Dr. LIPP publishes in the *Arch. für Dermat. und Syph.*, Nov. 3, 1869, two cases of psoriasis and three of chronic eczema, which were cured by hypodermic injections of arsenious acid. In the former the result of the injections was satisfactory, after the internal use of Fowler's solution had failed. The cases of eczema are not so conclusive, as other means besides the injections were used. In the first case of psoriasis eight grains of arsenious acid were injected in forty-eight days, and in the second four grains in thirty-eight days. The author gives minute details respecting the phenomena observed during the injections, and states that he does not mean to infer from so few cases the superiority of the in-

jections over the internal use of arsenic; but he merely observes that in favor of the former he might mention—the certainty of absorption, the non-interference with the organs of digestion, the small doses used, and the short treatment. As quinine and other remedies are now frequently injected, a time will probably soon come when the stomach will rarely be troubled with medicinal substances.

Value of the Alkaloids of Cinchona.

By order of Government, the several alkaloids of Peruvian bark have been put to the test in India, in 2,472 cases of fever. The result, as reported in the *Medical Times*, is, that the sulphate of quinidia possesses an anti-febrile power equal to the sulph. of quinia; that the sulphate of cinchonidia is slightly less efficacious, and that the sulphate of cinchonia, though very inferior to the others, is a very useful agent in the treatment of fevers.

Reviews and Book Notices.

NOTES ON BOOKS.

We have received the President's address delivered before the Indiana State Medical Society, May 15th, 1870, by GEO. SUTTON, M. D., of Aurora, Ind. The subject of the address is "Man's Power over Nature, and Medicines as means by which he Aids and Controls the Laws of Life." We have perused this address with great pleasure. It contains many very valuable thoughts. We wish that it could have an extensive circulation in the profession. We have marked a number of passages which we shall endeavor to find room for in *THE REPORTER*.

We have recently received a very valuable report made in 1869 to the Metropolitan Board of Health (New York) on Vaccination, by J. P. LOINES, M. D., House and Vaccine Physician to the Eastern Dispensary. Dr. Loines' researches and statistics on this important subject possess great interest and value.

The *American Journal of Pharmacy* now issues monthly an advertising and news sheet. It appears to be of slight literary value, but is sent free of cost to subscribers to the *Journal of Pharmacy*.

We have on our table, a valuable and interesting monograph on Idiocy, by Dr. EDWARD SEGUIN, being a lecture delivered before the N. Y. Medical Journal Association. Portions of it have been published in different medical and other periodicals in New York. It is published by WM. WOOD & Co., New York.

D. APPLETON & Co., of New York, send us "A Medico-Legal Study of the case of Daniel McFar-

land, by WM. A. HAMMOND, M. D., etc., etc." The paper was read before the Medico-Legal Society of New York, and published in the *Journal of Psychological Medicine*, for July 1870. Dr. Hammond's reputation as a physiologist, and his pretensions in psychiatry, give interest to this pamphlet, though we confess that there was much in his testimony on the trial in question that seemed to us objectionable, and we never could imagine where he won his reputation in this particular line of study. His acquirements seem to be theoretic rather than practical. To our mind, the testimony in the McFarland case proved him to be a murderer, without the shadow of a claim for exemption on the score of insanity. There were mitigating circumstances no doubt, but insanity was not of them.

BOOK NOTICES.

Fourth Annual Report of the Metropolitan Board of Health of the State of New York. 1869. pp. 504. New York. D. Appleton & Co.

This is a valuable contribution to our sanitary literature. Dr. ELISHA HARRIS, the very efficient, able and learned sanitary superintendent of the Metropolitan district, and his coadjutors are doing a great work in the collection of such valuable statistics as are found in this volume. It would be fortunate if all our large cities were as well served in sanitary matters as New York is. Yet the Board of Health, and its subordinate officers, labor under very great disadvantages in the discharge of their duties. Politics—the bane of our political economy, so interferes with everything which involves "office-holding," that a system of observations and records cannot usually be pursued for any great length of time. It even renders uncertain the numbers of the population of a city; as one class of politicians strive to appreciate, while another strives to depreciate the number. Ten years ago we had quite a contest with a Register of the City of New York, who, for certain political reasons tried to make out then that New York contained a resident population of 1,000,000. Of course rates of mortality and other statistics, based on an erroneous enumeration or estimate of the population, deprive them of all their value. We find that Dr. Harris rates the population of New York at 1,000,000, and of Brooklyn at 370,000, giving a death-rate for the former of 25.13, and of the latter of 22.59, per 1,000 inhabitants. We are inclined to think that the census now in progress will give New York less than 1,000,000 inhabitants, and carry the death-rate up to nearly 30 per 1,000.

There are many topics of interest that we would like to notice if we had space, among others a very valuable report on small pox and vaccination. We may recur to the subject at some future time.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, AUGUST 27, 1870.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

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MEDICAL LIBRARIES AND COLLECTIONS.

We are glad to see evidences of vitality in the Medical and Chirurgical Faculty of Maryland, which is one of our oldest medical organizations, and has, in days past, done much to advance the interests of medicine. For some years past, until recently, it seems to have been quite inactive.

Among the committees of the Society is one on a library, and they have issued a circular letter to the profession of the State, calling for books and funds in aid of the library. It seems that the Faculty already possesses a library of about 4,000 volumes. The committee says:

“The funds at the disposal of the Library Committee will only enable them to purchase some of the new and valuable publications of the day. In their desire to develop rapidly their important trust, they would respectfully plead for coöperation, and for some of that charity for which the medical profession everywhere is so conspicuous.

“From the members of the medical profession donations of books are solicited. Every physician has many medical works which he can spare for so noble a purpose, and every physician who has the good of his profession at heart will cheerfully aid in the establishing of an extensive Medical Library which he, as well as the profession at large, may at all times consult. Medical books are desired regardless of age or kind; and all donations of medical books which physicians can spare will be gladly and gratefully received.”

The medical profession should respond heartily to this appeal, and contribute to the establishment, not only of a good library, but of a collection of anatomical and pathological specimens, and anything else that will be of interest and value to the profession. THE REPORTER has always been an advocate of collections, not only on the part of our National and State organizations, but of local organizations also. Wherever several medical men can meet together occasionally, they should have a head-quarters, where they can deposit, for the time being, whatever each can spare from his own library, or office, for the general good of the profession of the locality—where they can instruct each other in the use of instruments and other appliances for the relief of suffering, and to a certain extent, at least, make common cause in their endeavors to serve the afflicted.

There are secret associations, trades unions, etc., some of which may combine for no good

Aug. 27, 1870.]

Notes and Comments.

177

to the community. Such a combination as the one referred to, and to which the action of the Medical and Chirurgical Faculty of Maryland tends, is one of real benevolence, characteristic of the medical profession. Such associations, besides adding to the intelligence of the profession by imparting knowledge one to another, would serve to unite its members in bonds of friendship.

The REPORTER is very generally read by the profession of Maryland, and we hope that these remarks may induce them to heartily and earnestly coöperate with the Library Committee of their State Society, and these remarks, we will add in conclusion, are just as applicable to the societies and profession of other States as of Maryland.

The Medical Library of the faculty of Maryland is at No. 60 Courtland St., Baltimore, and Dr. CORDELL is the Librarian.

Notes and Comments.

Half-Yearly Compendium.

THE HALF-YEARLY COMPENDIUM OF MEDICAL SCIENCE for July (No. 6), is a very interesting number, containing articles on a great variety of subjects in each department. The beautiful paper and print are very noticeable. The COMPENDIUM grows in popularity and circulation, and should receive a hearty support from the medical profession of the country.

Errata.

In REPORTER of last week, in Dr. FRISLIE's article, the following errors occur: Page 127, first column, 18th line from top, for "*wild fit*" read "*mild fit*;" same page second column, 13th line from bottom, for "*modulated*" read "*moderated*."

Harvard University.

The catalogue of this institution for the academic year 1869-'70, first term, is quite a formidable affair. The catalogue of the Officers of Instruction and Government comprise no less than ninety-five names. The University embraces all the departments of literature and science.

The Medical Department is in a very flourishing condition. The number of matriculants, session of 1868-'69, was 306, placing it among the largest medical schools in the country. The Faculty and instructors in this department number twenty names, among whom are some of the ablest teachers of medicine in the country. We had supposed that the Medical Department of Harvard University was

one of the small, struggling schools of the country, but a sight of its catalogue and appointments dissipates the notion entirely.

An annual prize is assigned, from the Foundation of Ward Nicholas Boylston, for the best dissertation on a medical subject, proposed by a committee appointed by the President and Fellows of the University. The prize is of the amount of \$120, and may be taken either in money or in the form of a gold medal of that value.

A New Auxilliary!

A State Board of Health having been formed in California, Dr. THOMAS M. LOGAN, of Sacramento—a very well known and intelligent sanitarian, through whose influence, probably more than that of any one else, the Board of Health was organized—proposes to enlist Odd Fellowship in the service of the Board in the collection of vital statistics! Dr. Logan has sent blank forms to all the lodges in the State we believe. He advocates his idea with much enthusiasm. How it will work remains to be seen. An enthusiastic church member might undertake to have the work done through the churches! The medical profession it seems to us is the proper and sufficient agency for this work, and if, with their intelligence on the subject, they cannot be made to do their duty, and do it well, we doubt whether any outside organization can be induced to do the work, even if they had the requisite intelligence.

The Lower Forms of Vegetable and Animal Life.

Professor GEORGE ROLLESTONE, of Oxford, in his late book on "Forms of Animal Life," gives a new criterion by which to distinguish animals from vegetables. He says that in the case of all animals the embryo absorbs its yolk from the inside, while in vegetables the germ of seed is surrounded by its albumen. This is a remarkable foreshadowing of the way in which the adult animal or plant absorbs its food, the former by placing it within itself for digestion and assimilation, while the latter takes its food from outside.

Therapeutical Sand-Baths.

A sand-bath is generally looked upon as a chemical contrivance; but it should be remembered that in two German places, Köstritz and Dresden, there are establishments where the patient is buried for hours in the hot sand, with the best effects as regards rheumatism. In the *Deutsche Klink*, Dr. Schwabe (himself suffering from contracted joints in consequence of rheumatism) describes the institutions, and recommends the heated sand-baths, he having been highly benefited by them.

Correspondence.

DOMESTIC.

Treatment of Phthisis.

Dr. MANSON, of Pittsfield, Me., having written to inquire whether Dr. LOGAN used tincture of iron and nitric acid *together* in the treatment of phthisis, Dr. Logan replies as follows: (Dr. Logan's article was published in the REPORTER of August 6th.)

EDS. MED. AND SURG. REPORTER:

In reply to the questions of Dr. Manson, as for want of space in my article I may not have been sufficiently explicit concerning the points by him referred to, as well as the "auxiliary treatment" of the cases therein reported, I will briefly mention the treatment of case 11.

Took 30 drops of *tr. of iron* (which contained quinia sulph. 3ss. to 3j.), in a wine-glass full of water half an hour before each meal. Also dilute nitric acid 40 drops in the same quantity of water immediately after each meal. When restless 3 grs. *alcoholic ext. hyoscinum* at bed time. Counter irritation by local application of *tr. of iodine* two or three times a day. An expectorant consisting of *syr. lactucarium* et *syr. prunus virginianus* equal parts, a desert spoonful of which was taken when required. Could not be induced to take cod liver oil regularly.

W. M. LOGAN, M. D.

Cincinnati, Ohio.

Renal Calculi.

EDS. MED. AND SURG. REPORTER:

Mr. J. M. Totman, æt. 45; by occupation a butcher; consulted me about two months ago concerning a spasmodic pain, confined to the right lumbar and iliac region, which lasts from 12 to 18 hours, and suddenly ceases. I told him I thought the spasmodic pain he suffered was caused by the passing of *renal calculi*, and he left.

On Monday, August 8th, 1870, I was sent for to go and see him, the messenger stating that he was affected with his old pain. Having only a few doors to pass before I got to where he lived, I had the opportunity of seeing him in about fifteen minutes after the attack came on. I found him lying on a sofa, suffering the most excruciating pain, and going through all sorts of gestures. After a careful examination into the case, and dismissing every other affection except the passing of renal calculi, I determined to try the inhalation of chloroform; but previous to administering the chloroform I applied a few drachms over the seat of pain, and while preparing to administer it, about four minutes afterward, he told me that he felt

great ease and thought that he could micturate, tried, but could not. As all pain had ceased I did not administer chloroform; tried to micturate in about fifteen minutes afterwards, which he did readily and with ease, saying he was cured again, and passing the small concretions that you will find enclosed, in all numbering about 25; the largest one, I am sorry to say, I cannot send you, as I crushed it in my examination. In all, Mr. T. has suffered about twelve times with this spasmodic affection.

Will you be so kind as to have these concretions examined, if necessary, and inform me under what treatment you would place him, and what remedies you would use, and in what manner when they are passing.

P. H. SHULTZ, M. D.

Shenandoah, Pa., August, 1870.

ANSWER.—The above case seems a very appropriate one in which to employ the *hydrangea arborescens*. See MED. & SURG. REPORTER, March 5th, 1870, p. 202. The calculi appear to be of the phosphatic variety.—Eds.

Ergot v. the Tampon.

EDS. MED. & SURG. REPORTER:

I have read with care and pleasure, in your journal of July 30th, the article written by Dr. O. A. Battson, of Ill., on the use of Ergot vs. the Tampon in uterine hemorrhage. I desire to add my testimony to that of Dr. Battson in the use of ergot in the hemorrhages from the uterus in the earlier months of gestation. My attention was first called to the use of ergot in such cases by Dr. I. M. Head, an able practitioner of this county, 10 or 12 years ago. I had just left a case of uterine hemorrhage in the second month of gestation, to see a case with Dr. Head; was in a hurry to get back and spoke of the case to him. He at once suggested the ergot with morphia in the case, saying if any thing would arrest the hemorrhage and avert an abortion that would. He did not take time to theorize, I left him and found my patient no better. I must confess I was somewhat skeptical about giving it, but regarding Dr. Head as good authority I at once gave a teaspoonful of the wine of ergot with $\frac{1}{2}$ gr. sulph. morphia; in 30 minutes I repeated the dose, with a decided arrest of the hemorrhage. I then repeated the dose in one hour, which controlled the hemorrhage completely, and I had the pleasure to see my patient delivered at full term of a ten pound boy. Since that time I have used the ergot and morphia to the exclusion of almost everything in such cases and I must say with very gratifying results.

As Dr. Battson says, we may confidently expect to arrest the hemorrhage and avert abortion, if on examination we find the os uteri but little dilated

and the membranes entire. But as the Dr. says, if we find hemorrhage profuse and coming in jets and gushes with every uterine contraction, with dilated os, I rarely find anything to serve us. My experience is confined, I might say, entirely to the earlier months of gestation in the use of the ergot. As regards the hemostatic powers of ergot I am fully convinced. I have just treated a terrible case of epistaxis with the ergot, occurring in a young man from the swamps of Arkansas, who has had repeated alarming hemorrhages from his nose. I gave him 20 drops fluid extract ergot every 30 minutes until relieved, which was accomplished by the third dose, to his great delight, as on former occasions several hours would elapse before the hemorrhage would cease, with all that could be done.

A. J. SWANEY, M. D.

Castalian Springs, Tenn.

NEWS AND MISCELLANY.

Society for the Medical Education of Women.

The Paris correspondent of the *British Medical Journal* says:

The following programme has been circulated: it is entitled, "Programme Provisoire des Cours de la première Année."

"The first year shall be chiefly devoted to the study of the sciences upon which medicine is based; viz., Natural History, Chemistry, and Physics (in their applications to the art of healing) and Anatomy.

"During the first six months, the pupils attend the classes established at the Sorbonne for the instruction *secondaire* of young women, viz.:

"1. Elements of Physics. Professor: M. Jamin, Member of the Institute.

"2. Elements of Chemistry. Professor: M. Riché, Substitute-professor (professor suppléant) at the Ecole Supérieure de Pharmacie.

"3. Elements of Botany. Professor: M. Van Tieghem, Lecturer at the Ecole Supérieure.

"4. Elements of Anatomy and Animal Physiology. Professor: M. Bert, Member of the Faculty of Sciences.

"5. Elements of Mathematics. Professor: M. Phillipon, Secretary of the Faculty of Sciences.

"During the second six months, the pupils will attend the following classes.

"1. Pharmaceutical and Medical Chemistry—a special course. Professor: A pharmacist of the hospitals.

"2. Human Anatomy and Physiology: special lectures on their relation to Medicine, and bearing upon the functions of digestion, respiration, circulation, and innervation. Professor: A surgeon of the hospitals.

"3. Elements of Pathology, particularly in rela-

tion to the Diseases of Children and Hygienics. Professors: Two physicians of the hospital's.

"After the completion of the second six months of study, the pupils will attend the hospitals appointed for their instruction. Supplementary lectures and demonstrations will be given by special tutors. During the first and following years of study, the pupils who contemplate practicing in Musselman countries receive three lessons a week either in the Turkish or the Arabic language. At the end of the first year, there will be a pass-examination for entrance to the higher classes."

It will be observed from the above programme, that during the first six months the Society for the Medical Education of Women requires no special staff. The pupils are to attend the courses at the Sorbonne instituted by M. Duruy two or three years ago, and denounced at the time in rather preposterous pamphlets by Monseigneur Dupanloup, the (anti-infallibility) Bishop of Orleans. The Bishop went to the Roman extreme of the female education question—admitting, however, that young women ought to be better educated than they are now in France, but arguing that they ought to be reared "sur les genoux de l'église," and not by secular professors. The courses of instruction given to young women of the middle classes in Paris at the Sorbonne, and at the Mairies of many of the great towns in France, are exceedingly good. Our feminine *confrères* will have every opportunity of making a good start if they profit (as they may) by the Sorbonne lectures for ladies instituted by M. Duruy.

It will be observed by the above programme, that no professors have as yet been appointed to the strictly professional classes. The status, but not the name, of the professor is given.

It will be likewise seen by the programme that, while the aim of the Society is to give the new order of female medical practitioners a good general and medical education, a distinct limit to their professional ambition is fixed. They are not placed on the road to the *summos medicinæ honores* attained by Miss Garrett. They are clearly intended to be a humble, and, I presume, a cheap class of doctors—good enough, it is supposed, to compete with the existing rank and file of the medical profession, but technically disqualified from jostling the *dii majores*—the Nélatons and others who have instituted the "Société Médicale pour l'Instruction des Femmes." This, according to some of the promoters, is a point on which a great deal hinges. With the facts before him, each reader can form his own conclusion.

Female Physicians.

We commend the following very sensible remark to the thoughtful consideration of those who advocate throwing all the avenues of making a liveli-

hood open to women. They are from an editorial in the *British Medical Journal* of April 2:

To us, looking from a distance on such social experiments as those to which we have referred, it appears very clear that, excepting on the theory that celibacy is either desirable, or at any rate unavoidable, it is impossible to believe that any benefit can accrue to the female sex as a whole by opening to it the means of livelihood which men have hitherto exclusively enjoyed. If society has really come to such a pass that the pursuits which have hitherto enabled men to gain a living for themselves, their wives and families, no longer do so, and that our young men are obliged to remain single and appropriate to themselves all they can earn, let us by all means fully acknowledge the fact and its consequences. If it has really come to a game of *saucé qui peut*, then let every one have a fair chance in the scramble. Under such circumstances it would be unfair to impose social disabilities on either sex. Rather, in the name of justice, let both fight together on equal terms for such fragments of happiness as may be yet secured. There are some, we believe, who, having looked carefully into our social tendencies, honestly believe that increasing celibacy is inevitable, and who are, therefore, according to our argument, fairly entitled to urge the right of the female sex to independent employments. To those who have not yet adopted this very serious creed, we would address an earnest request that they will take the trouble to estimate the kind of effect in that direction which the introduction of female workers into male vocations must inevitably have. That effect will, in the long run, be to increase celibacy by reducing the emoluments of the male sex, and will most certainly give us year by year a greater and greater number of ladies who will need independent means of support. The lady-doctor is, therefore, as we take it, unless she be conscientiously an advocate of celibacy, a traitress to her sex. She betrays their real interests to her own eccentric longing for the will-o'-the-wisp pleasures of independence. In the olden time it was thought most fitting that boys should climb the apple-trees and share the proceeds with the girls. Now that apples are becoming scarce, there seems to be a growing impression that the boys keep the best for themselves. Without giving any opinion as to whether or not this complaint is well grounded, we may be permitted to urge that there are two ways out of the difficulty. It is not even yet absolutely necessary that the girls should climb themselves; they might possibly attain quite as much by seeking to develop in their brothers and cousins a more energetic spirit of daring, and a better notion of chivalry and honor. It will be a bitter lesson to most of us if ever we are forced to learn it, that the interests of the sexes are not absolutely

identical—that they may, indeed, be competitive or antagonistic. The judicious division of labor is among the chief gains of civilization and means of advance, and first under that head we have hitherto ranked the appropriation of suitable tasks in life to the two sexes. The exemption of the female sex from all pursuits involving hard labor, is a feature which characterizes all communities which make any pretence to social development. Our object for the present is not so much to show that the pursuit of medicine is intrinsically inappropriate to women, as to prove that there could be no real advantage to the sex in allowing them to pursue it, and that, on the contrary, such permission would tend to increase the very evils under which society now suffers.

—Dr. JOHN H. GIBON has been appointed Quarantine Master of Philadelphia, by Gov. Geary. He was several years the Governor's Private Secretary. He enters at once upon the discharge of his duties.

QUERIES AND REPLIES.

Dr. J. H. B., N. H.—In the HALF-YEARLY COMPENDIUM, No. 6, for July, 1870, you will find the subject of incontinence of urine in children and young persons treated at length.

"Scaly Eruption."

Under the head of Queries and Replies, A. H., of Ohio, asks information in regard to a scaly eruption. I have used with satisfaction in some cases of that kind a solution of ten grains of nitrate of lead to the ounce of glycerine, applied three or four times daily, wearing during the night a soft glove, having previously made use of the solution. Some times a solution of carbolic acid in glycerine, or even water, will do well. Washing the parts several times daily in wheat bran and soft warm water is another good remedy. These things, combined with proper internal treatment, such as sarsoc. comp. et potass. iodid. Fowler's solution, etc., will give satisfaction. But I would especially call your correspondent's attention to an article on psoriasis, by Dr. Maury, in vol. xxii of the *REPERTAIRE*, March 19 and 26, pp. 233 and 256.

Respectfully yours,

C. W. F.

E. Springfield, N. Y.

MARRIED.

SWEET—PAINE.—In Newport, Vt., August 2d, by Rev. George H. Bailey, Orlando P. Sweet, M. D., and Lucy A. Paine, both of Lowell, Vt.

DIED.

MARSH.—Dr. Leonard Marsh, an old resident of Burlington, Vt., and for fifteen years a professor in the University of Vermont, died August 16th.

ROBERTSON.—On the 12th inst., at the residence of her son-in-law, Dr. J. M. Kuhn, in Salem, Columbiana co., Ohio, Mrs. Anna E. Robertson, wife of the late Dr. James Robertson, of Hanover, Ohio, in the 65th year of her age.

SCHILLING.—In New York, August 17th, Louisa, wife of Ernest Schilling, M. D.

RODGERS.—May 8th, 1870, at Upper Alton, Ill., Eleazer Rodgers, M. D., aged 33 years.

TODD.—August 14th, 1870, at the residence of his parents, on Quincy street, Rev. Martin Luther Todd, son of Dr. L. S. Todd, of this city, in the 31st year of his age.